ELSEVIER

Volume 499, Numbers 1–2, 6 September 1995

Journal of Organometallic Chemistry

Contents

Introduction vii

Regular Papers

Photolysis of some organosilylene precursors in a molecular beam
Y. Huang, M. Sulkes and M.J. Fink (New Orleans, LA, USA) 1

The dimethylaminoethyl-tetramethylcyclopentadienyl ligand in germanium(II) chemistry: synthesis, properties and X-ray crystal structural data of $(Me_2NCH_2CH_2)Me_4C_5GeCl$
P. Jutzi, H. Schmidt, B. Neumann and H.-G. Stammler (Bielefeld, Germany) 7

The positions of λ_{max} for some trimethylsilyl-substituted silylenes
S.G. Bott, P. Marshall, P.E. Wagenseller, Y. Wang and R.T. Conlin (Denton, TX, USA) 11

1:2-Adducts from Silylenes and 1,3-butadiene
K.L. Bobbitt and P.P. Gaspar (Saint Louis, MO, USA) 17

Redox properties of dihalogermylenes, dihalostannylenes and their complexes with Lewis bases
V.Ya. Lee, A.A. Basova, I.A. Matchkarovskaya, V.I. Faustov, M.P. Egorov, O.M. Nefedov, R.D. Rakhimov and K.P. Butin (Moscow, Russia) . 27

Silicon–carbon unsaturated compounds. LIV: Nickel-catalyzed reactions of 3,4-benzo-1,1,2,2-tetraethyl-1,2-disilacyclobut-3-ene with alkynes
A. Naka, S. Okazaki, M. Hayashi and M. Ishikawa (Higashi-Hiroshima, Japan) 35

Synthesis and reactions of stannaneselone
M. Saito, N. Tokitoh and R. Okazaki (Tokyo, Japan) 43

Protonated digermyl and distannyl ethers with partial germylium and stannylium ion character
J.B. Lambert, S.M. Ciro and C.L. Stern (Evanston, IL, USA) 49

Rates of solvolysis of the compounds $(Me_3Si)_2(Ph_2MeSi)CSiMe_2X$, X = I, OSO_2CF_3 and OCN. Mechanistic implications
M.A.M.R. Al-Guarashi, G.A. Ayoko, C. Eaborn and P.D. Lickiss (Brighton, UK) 57

Interactions in crystals. LXXIII. The structures of 1,2,4,5-tetrakis(trimethylsilyl)benzene and of its solvent-separated radical anion salt $[Na^{\oplus}(H_3COCH_2CH_2OCH_3)_3]\,[((H_3C)_3Si)_4H_2C_6^{\cdot\ominus}]$
H. Bock, M. Ansari, N. Nagel (Frankfurt, Germany) and Z. Havlas (Prague, Czech Republic) 63

Synthesis and the electronic spectra of the first β-ketoacylsilanes and their lithium enolates: new insights into hyperconjugation in acylsilanes and their enolates
Y. Apeloig, I. Zharov, D. Bravo-Zhivotovskii (Haifa, Israel), Y. Ovchinnikov and Y. Struchkov (Moscow, Russia) 73

Generation and reactions of metal-free trialkylgermyl anions from silylgermane and digermane
K. Mochida, H. Suzuki, M. Nanba (Tokyo, Japan), T. Kugita (Yamanashi, Japan) and Y. Yokoyama (Tokyo, Japan) 83

Synthesis and characterization of sterically hindered diarylsilanes containing 2,4,6-trimethylphenyl and 2,4,6-tris(trifluoromethyl)phenyl substituents. X-ray crystal structure of bis[2,4,6-tris(trifluoromethylphenyl)]fluorosilane
J. Braddock-Wilking, M. Schieser, L. Brammer, J. Huhmann and R. Shaltout (St. Louis, MO, USA) 89

Decomposition of bis(silyldiazomethyl)polysilanes: formation of polysilabicyclo[l.m.n]alkane derivatives
W. Ando, M. Sugiyama, T. Suzuki, C. Kato, Y. Arakawa and Y. Kabe (Ibaraki, Japan) 99

Synthesis and characterization of 1,9-difluoro-5-methyl-5-phenyl-10,11-dihydro-5*H*-dibenzo[b,f]silepin
J.Y. Corey, A.J. Pitts, R.E.K. Winter and N.P. Rath (St. Louis, MO, USA) 113

Electronic properties, polymerization, and cycloaddition of 3,4,7,8-tetragermacycloocta-1,5-diyne and related compounds
H. Komoriya, M. Kako, Y. Nakadaira, K. Mochida (Tokyo, Japan), M. Tonogaki-Kubota and T. Kobayashi (Yokohama, Japan) 123

Tetrakis (perfluoropropyl)tin and other perfluoropropyltin compounds: synthesis, characterization and reactivity
D. Seyferth and F. Richter (Cambridge, MA, USA) 131

Nucleophile-assisted racemizations of halosilanes: thermodynamic studies
A.R. Bassindale, J.C.-Y. Lau and P.G. Taylor (Milton Keynes, UK) 137

Synthesis and crystal structure of a pentacoordinate 1,2-oxagermetanide
T. Kawashima, Y. Nishiwaki and R. Okazaki (Tokyo, Japan) 143

Intramolecular coordination at phosphorus: donor–acceptor interaction in three- and four-coordinated phosphorus compounds
F. Carré, C. Chuit, R.J.P. Corriu, P. Monforte, N.K. Nayyar and C. Reyé (Montpellier, France) 147

Ene preference in the reaction of allenylmethylsilanes with hetero-double bonds mediated by a Lewis acid
M. Hojo, C. Murakami, H. Aihara, K. Tomita, K. Miura and A. Hosomi (Ibaraki, Japan) 155

Aluminum chloride catalyzed stereo- and regiospecific allylsilylation of alkynes: a convenient route to silyldienes
S.H. Yeon, J.S. Han (Seoul, South Korea), E. Hong, Y. Do (Taejon, South Korea) and I.N. Jung (Seoul, South Korea) 159

Catalytic asymmetric hydrosilylation of 1,3-dienes with difluoro(phenyl)silane
H. Ohmura, H. Matsuhashi, M. Tanaka, M. Kuroboshi, T. Hiyama (Yokohama, Japan), Y. Hatanaka and K.-i. Goda (Kanagawa, Japan) 167

The role of dioxygen in hydrosilylation of alkenes catalyzed by ruthenium phosphine complexes
J. Guliński (Poznań, Poland), B.R. James (Vancouver, Canada) and B. Marciniec (Poznań, Poland) 173

Reactions of silanes with allylic alcohols catalyzed by titanocene derivatives: an approach to catalytic cross dehydrocoupling/co-intramolecular hydrosilation
S. Xin and J.F. Harrod (Montreal, Canada) 181

$Co_2(CO)_8$-Catalyzed reaction of aromatic aldehydes with hydrosilanes under carbon monoxide as 1 atm: Incorporation of CO into the carbonyl carbon atom of aldehydes
N. Chatani, H. Tokuhisa, I. Kokubu, S. Fujii and S. Murai (Osaka, Japan) 193
Synthesis of new poly(2,4-disilapentane) oligomers via dehydrocondensation reaction using Group IV metallocene catalysts
P. Roux, J.-P. Pillot, M. Birot, J. Dunoguès and P. Lapouyade (Talence, France) 199
Redistribution reactions of hydrosilanes mediated by the unsymmetrical and homometallic phosphido-bridged complex $(\eta^5\text{-}C_5Me_5)Fe_2(CO)_4(\mu\text{-}CO)(\mu\text{-}PPh_2)$
H. Hashimoto, H. Tobita and H. Ogino (Sendai, Japan) 205
Activation of a C–O bond by reaction of a tris(cyclopentadienyl)lanthanide complex with an alkali metal in dimethoxyethane (DME); crystal structures of $[Nd\{\eta\text{-}C_5H_3(SiMe_3)_2\text{-}1,3\}_2(\mu\text{-}OMe)_2Li(DME)]$ and $[\{Ce(\eta\text{-}C_5H_3{}^tBu_2\text{-}1,3)_2(\mu\text{-}OMe)\}_2]$
Y.K. Gun'ko, P.B. Hitchcock and M.F. Lappert (Brighton, UK) 213
Synthesis, structures, and properties of novel aminodisilanes bearing bulky substituents: 1,2-bis(1,1,2-trimethylpropyl)-1,1,2,2-tetrakis(diethylamino)disilane and 1,2-di-tert-butyl-1,1,2,2-tetrakis(diethylamino)disilane
M. Unno, M. Saito and H. Matsumoto (Gunma, Japan) 221
The different modes of decomposition of hexa-t-butylcyclotrisilane
M. Weidenbruch, E. Kroke, S. Pohl, W. Saak (Oldenburg, Germany) and H. Marsmann (Paderborn, Germany) 229
Hepta-tert-butylcyclotetrasilane: a highly crowded cyclotetrasilane
S. Kyushin, H. Sakurai and H. Matsumoto (Gunma, Japan) 235
Syntheses, structures and properties of dihydroxypermethylcyclosilanes and permethyloxahexasilanorbornanes
A. Spielberger, P. Gspaltl, H. Siegl, E. Hengge and K. Gruber (Graz, Austria) 241
Synthesis, structure, and reactivity of the permethylated decasilane $(Me_3Si)_3Si\text{–}SiMe_2\text{–}SiMe_2\text{–}Si(SiMe_3)_3$
S.M. Whittaker, M.-C. Brun, F. Cervantes-Lee and K.H. Pannell (El Paso, TX, USA) 247
Synthesis and characterization of polystyrene-block-poly(methylphenylsilylene) and polyisoprene-block-poly(methylphenylsilylene)
E. Fossum, J.A. Love and K. Matyjaszewski (Pittsburgh, PA, USA) 253
Palladium-*tert*-alkyl isocyanide catalyzed intramolecular bis-silylation of vicinally disubstituted alkenes
M. Suginome, A. Matsumoto, K. Nagata and Y. Ito (Kyoto, Japan) C1
$Et_3GeNa\text{–}YCl_3$ complex as a new strong base
Y. Yokoyama and K. Mochida (Tokyo, Japan) C4
Synthesis, solid-state structure, and reduction of 1,1-dichloro-2,3,4,5-tetramethylsilole
U. Bankwitz, H. Sohn, D.R. Powell and R. West (Madison, WI, USA) C7

Author Index C10

Subject Index C12

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.